

REMARKS/ARGUMENTS

This communication responds to the Office Action of January 12, 2006 and the Supplemental Office Action of March 13, 2006. In this communication, Applicants have amended claim 1. The amendments are supported by the specification at least on page 9, lines 1-2, and by Figures 6 and 8. No new matter is introduced. No range of equivalents is surrendered. Claims 1-25 are pending. Allowance of all pending claims is respectfully requested.

Rejections Under 35 U.S.C. § 102

Claims 1-5, 7, 8, 11, 12, 15-18, 20-23 and 25 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,750,988 to Apffel et al. (hereinafter "Apffel") for reasons stated on page 2 of the Office Action. Claims 1-5, 7, 8, 10-12, 15-18, 20-23 and 25 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,653,626 to Fischer et al. (hereinafter "Fischer") for reasons stated on page 2 of the Office Action. Applicants respectfully traverse the rejections.

For anticipation under 35 U.S.C. §102, the reference "must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present." *MPEP* §706.02. The Federal Circuit has held that prior art is anticipatory only if every element of the claimed invention is disclosed in a single item of prior art in the form literally defined in the claim. *See, Jamesbury Corp. v. Litton Indus. Products*, 756 F.2d 1556, (Fed. Cir. 1985); *Atlas Powder Co. v. DuPont*, 750 F.2d 1569, (Fed. Cir. 1984); and *American Hospital Supply v. Travenol Labs*, 745 F.2d 1 (Fed. Cir. 1984).

Apffel fails to teach every aspect of the claimed invention because Apffel does not teach "an auxiliary electrode operable to receive a voltage from an auxiliary voltage source, the auxiliary electrode operable to modulate an electric field at the exit orifice and capable of being disposed in positions perpendicular and opposite to the nozzle," as recited in amended claim 1. The Examiner alleges that Apffel discloses "...a pin auxiliary electrode 150 disposed outside the ion pathway." Applicants respectfully disagree.

The charge source 150 shown in Figure 5 is a charge source positioned to "optimally induce charge transfer among the molecules collected in the gap 145" (col. 7, lines 4-7). The charge source 150 has "the point arranged adjacent to the first passageway exit which ionizes the vaporized molecules into ionized molecules." (col. 3, lines 51-54). In other words, the charge source 150 is the ionization source, not an auxiliary electrode "operable to modulate an electric field at the exit orifice." Moreover, Apffel does not teach that the auxiliary

electrode is “capable of being disposed in positions perpendicular and opposite to the nozzle.” Accordingly, Applicants respectfully submit that claim 1 is patentable over Apffel. Applicants further submit that Claims 2-5, 7, 8, 11, 12, 15-18, 20-23 and 25 are patentable over Apffel because they depend from claim 1 and define additional patentable subject matter. Withdrawal of the rejection to claims 1-5, 7, 8, 11, 12, 15-18, 20-23 and 25 is respectfully requested.

Fischer also fails to teach every aspect of the claimed invention. Fischer describes an auxiliary electrode 152 that “establishes an electric field between it and the second passageway 22 to assist motion of ions into the latter.” (col. 11, line 67 to col. 12, line 3). Fisher does not teach that the auxiliary electrode 152 is “capable of being disposed in positions perpendicular and opposite to the nozzle,” as recited in amended claim 1.

Moreover, a person of ordinary skill in the art would understand that the auxiliary electrode 152 of Fischer is a repeller electrode that pushes the ions away from the electrode and into the inlet orifice 17. As shown in Figure 6 of Fischer, the repeller electrode 152 needs to be placed in positions perpendicular and opposite to the inlet orifice 17, but not in positions perpendicular and opposite to the exit orifice 120d. Therefore, Fischer actually teaches away from the claimed invention.

Accordingly, Applicants respectfully submit that Fischer does not anticipate claim 1. Applicants further submit that Claims 2-5, 7, 8, 10-12, 15-18, 20-23 and 25 are patentable over Fischer because they depend from claim 1 and define additional patentable subject matter. Withdrawal of the rejection to claims 1-5, 7, 8, 10-12, 15-18, 20-23 and 25 is respectfully requested.

Rejections Under 35 U.S.C. § 103

Claims 6, 9, 13, 14, 19, and 24 stands rejected under 35 U.S.C. § 103(a) over Apffel or Fischer for reasons stated on page 3 of the Office Action. Applicants respectfully traverse the rejection.

To establish a *prima facie* case of obviousness ... the prior art reference (or references when combined) must teach or suggest all of the claim limitations. *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991) and *MPEP* § 2142. In order to combine references, the following tenets of patent law must be adhered to: (A) The claimed invention must be considered as a whole; (B) The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination; (C) The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention, and (D)

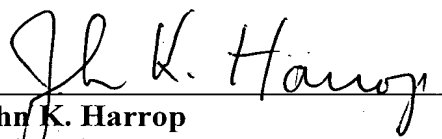
Reasonable expectation of success is the standard with which obviousness is determined. *Hodosh v. Block Drug Co., Inc.*, 786 F.2d 1136, 1143 n.5 (Fed. Cir. 1986) and *MPEP* § 2143.

Claims 6, 9, 13, 14, 19, and 24 depend from claim 1. As discussed above, claim 1 is patentable over Apffel and Fischer because neither reference teaches or suggests "an auxiliary electrode operable to receive a voltage from an auxiliary voltage source, the auxiliary electrode operable to modulate an electric field at the exit orifice and capable of being disposed in positions perpendicular and opposite to the nozzle." Consequently, claims 6, 9, 13, 14, 19, and 24 are patentable over Apffel and Fischer because they depend from claim 1 and define additional patentable subject matter. Withdrawal of rejection to claims 6, 9, 13, 14, 19, and 24 under 35 USC 103 is respectfully requested.

In view of the foregoing remarks, favorable reconsideration of all pending claims is requested. Applicants respectfully submit that this application is in condition for allowance and request that a notice of allowance be issued. Should the Examiner believe that anything further is required to expedite the prosecution of this application or further clarify the issues, the Examiner is requested to contact Applicants' attorney at the telephone number listed below.

Respectfully submitted,

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